Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
February 16 – February 22, 2012

- **Flooding and damages to infrastructure due to the impact of Tropical Cyclone Giovanna was observed across Madagascar and could occur in southern Mozambique.**

1) Torrential rains and very strong winds associated with Tropical Cyclone Giovanna caused significant damage to infrastructure across portions of Madagascar. The torrential rains also could cause flash flooding in southeastern Africa as Giovanna could make a second landfall or briefly brush the southern Mozambique coastline during the upcoming weekend.

Tropical Cyclone Giovanna impacts Madagascar.

During the past week, widespread moderate rainfall (10-40 mm) was recorded across most of southern Africa. The heaviest rain (> 50 mm) was observed across Madagascar, Zambia, southern Namibia, southern Angola, northern Zimbabwe, northern Mozambique, and Botswana. The heavy rains (> 75 mm) over Madagascar are associated with the landfall of Tropical Cyclone Giovanna. The storm caused widespread power outages and damage. In Brickaville and Moramanga along the eastern coast, infrastructure damage was severe. In the capital, Antananarivo, flooding and the overflowing of the Imamba River was observed. Rainfall was below-average for a second consecutive week across central Mozambique and Tanzania where little rainfall (< 10 mm) was recorded. Light rainfall (< 20 mm) was also recorded across southern Zimbabwe, southern Mozambique and northern South Africa (**Figure 1**). The below-average rainfall has continued dryness concerns in portions of southern Zimbabwe and Mozambique where rainfall has been reduced since the beginning of January.

The below-average weekly rains during the past week helped to increase thirty-day rainfall deficits across Angola, Tanzania and Zimbabwe. Dry areas in southern Zimbabwe, eastern Botswana and southern Mozambique maintained moderate (50-100 mm) thirty-day rainfall deficits. The deficits have developed due to poorly distributed and infrequent rainfall since the beginning of January. Moderate rainfall deficits (25-100 mm) also exist across Zambia and Angola. Rains, though, have been frequent, yet below-average, across Zambia during the past thirty-days while rains in Angola have been much below-average and infrequent. Farther north, moderate deficits (10-50 mm) have started to deepen across Tanzania and around Lake Victoria as rains have been light during the past couple of weeks. In contrast, rainfall surpluses (25-100 mm) continued over eastern Namibia, and northern/southern Mozambique (**Figure 2**).

For the next week, the impacts of Tropical Cyclone Giovanna could be felt across Madagascar and potentially southern Mozambique. After crossing Madagascar, Giovanna is expected to re-strengthen and stall in the Mozambique Channel. After which, considerable uncertainty exists regarding Giovanna's track. If Giovanna tracks farther west, heavy rains (> 100 mm) could impact southern Mozambique causing flooding. Elsewhere, moderate rains (10-40 mm) are expected.

Poor conditions spread across southern Zimbabwe.

An analysis of cropping conditions across southern Africa indicated continued degrading conditions across portions of southern Zimbabwe, eastern Botswana and southern Mozambique during the first dekad of February (**Figure 3**). Reduced rainfall has caused increasing rainfall deficits across these regions. However, rainfall associated with Tropical Cyclone Giovanna could help replenish ground moisture across these regions during the next week. The heavy rains, though, could cause localized flooding.

Satellite Estimated Rainfall (mm)
Valid: February 8th – February 14th, 2012

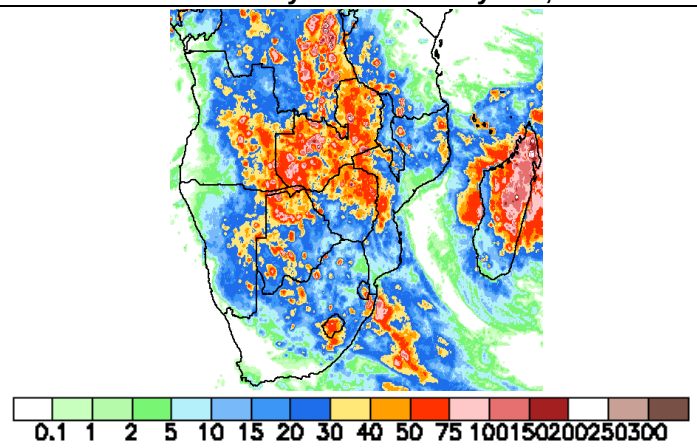

Figure 1: NOAA/CPC

Satellite Estimated Rainfall Anomaly (mm)
Valid: January 15th – February 13th, 2012

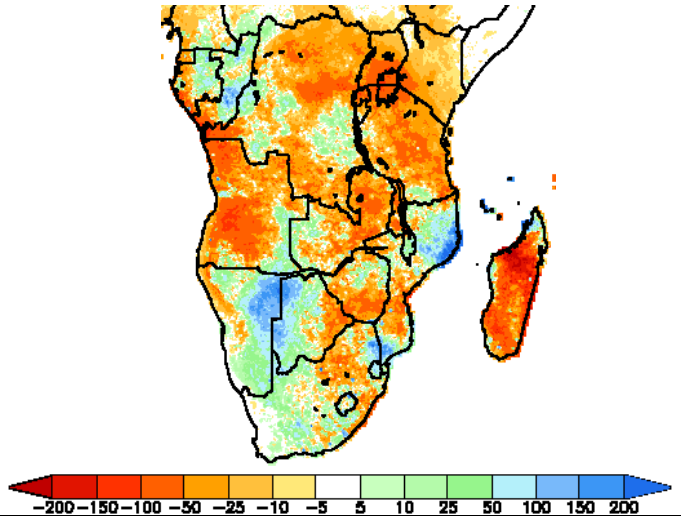

Figure 2: NOAA/CPC

Water Requirement Satisfaction Index (WRSI)
Valid: As of the first dekad of February, 2012

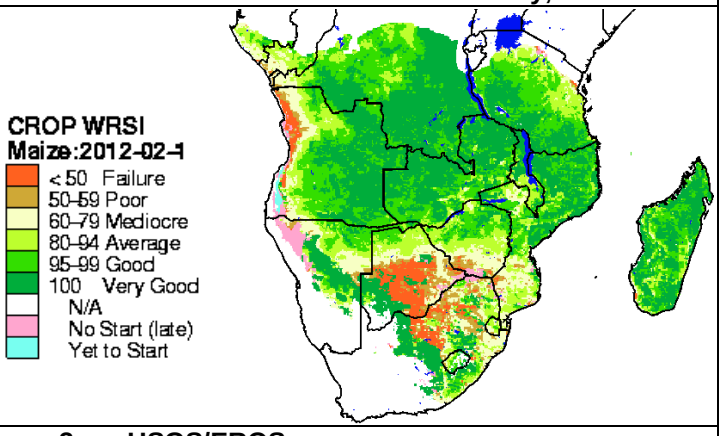

Figure 3: USGS/EROS

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.